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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,794	02/21/2002	Peter J. Fritz	54666US006	4815
32692	7590	09/22/2005	EXAMINER	
3M INNOVATIVE PROPERTIES COMPANY PO BOX 33427 ST. PAUL, MN 55133-3427			ELEY, TIMOTHY V	
		ART UNIT	PAPER NUMBER	
		3724		

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	10/081,794	FRITZ ET AL.	
	Examiner Timothy V. Eley	Art Unit 3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 29 August 2005.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 31-55 is/are pending in the application.
- 4a) Of the above claim(s) 33,34,41,42,49-51 and 55 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 31,32,35-40,45-48 and 52-54 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

DETAILED ACTION***Election/Restrictions***

1. Applicant's election with traverse of Species I in the reply filed on August 29, 2005 is acknowledged. The traversal is on the ground(s) that no serious burden on the Examiner exists and that a thorough search for the subject matter of the elected species would encompass a search for the subject matter of the non-elected species. This is not found persuasive because in not only does the non-elected species present an additional search, it also presents additional subject matter for consideration by the Examiner, therefore placing serious burden upon the Examiner.

The requirement is still deemed proper and is therefore made FINAL.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- Claims 31,32,35-40,45-48, and 52-54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al in view of Hutter, III(4,842,912) and Gugle et al(4,636,124).

- a. Johnson et al discloses a method for attaching a planar surface a fastener 40 to a surface conditioning member. See figures 1 and 2.
- Johnson et al does not disclose that the fastener is attached to the member by inducing relative rotation between the fastener and the surface conditioning member with a layer of thermoplastic adhesive in contact with the planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member; and thereafter stopping the relative rotation between the fastener and the surface conditioning member.
- However, Hutter, III discloses a method of attaching a planar surface of a fastener to a member by inducing relative rotation between the fastener and the member with a layer of adhesive in contact with a planar surface of the fastener and the member so as to soften the layer of adhesive to form a bond between the fastener and the member; and b) thereafter stopping the relative rotation between the fastener and the member. See figure 25 and column 10, lines 19-end to column 11, lines 1-13.
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the method of Johnson et al by inducing relative rotation between the planar surface of the fastener and the

surface conditioning member with a layer adhesive in contact with the planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member; and thereafter stopping the relative rotation between the fastener and the surface conditioning member in order to provide a more secure connection between the fastener and the surface conditioning member as taught by Hutter, III.

- Neither Johnson et al nor Hutter, III specifically disclose that the adhesive is thermoplastic.
- However, Gugle et al disclose that it is well known in the art to friction weld two members together by using a thermoplastic adhesive therebetween. See column 1, lines 6-9, and column 2, lines 30-35.
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified the method disclosed by Johnson et al by using thermoplastic as the adhesive as taught to be desirable by Gugle et al.
- Regarding claims 32 and 54, applicant's broad recitation of a "sheet" of adhesive is met by Johnson et al as modified. Furthermore, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the embodiment of Hutter, III in figures 18-20 which discloses a

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"sheet" of adhesive could have been combined with the embodiment of figure 25 by replacing the adhesive therein with a "sheet" of adhesive; and inherently the sheet of adhesive in the embodiment of figures 18-20 must be placed before inducing relative rotation as performed in the embodiment of figure 25.

- Regarding claims 39 and 40, the fastener comprises nylon. See column 2, lines 46 and 47.
- Regarding claims 46 and 47, the exact relative rotation, and the exact compressive force would have been obvious to one having ordinary skill in the art at the time the invention was made since such would depend upon numerous factors, i.e., the exact material of the adhesive and/or the fastener, the shape of the adhesive, etc.

Response to Arguments

2. Applicant's arguments with respect to claims of record have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

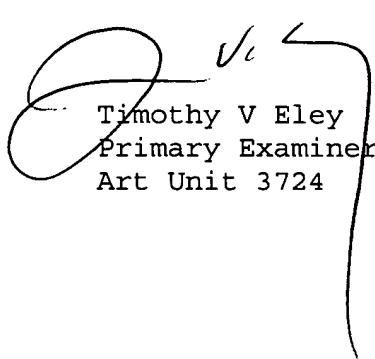
- Shibayama et al(4,832,549) discloses friction welding.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Timothy V Eley
Primary Examiner
Art Unit 3724

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